

**Before the Federal Communications Commission
Washington, DC 20554**

**In the Matter of
Digital Broadcast Copy Protection**

/

/

/

/

MB Docket No. 02-230

**COMMENTS ON PROPOSED “BROADCAST FLAG” RULEMAKING
BY R. POLK WAGNER AND WILLIAM H. BURGESS
[October 30, 2002]**

In response to the questions posed by the August 8, 2002 Notice of Proposed Rulemaking, we respectfully submit the following comments.

In our view, the FCC should *not* establish a “regulatory copy protection regime” to facilitate the transition to digital television. First, direct governmental mandates relating to the development and deployment of new technologies are generally undesirable except where market forces have been shown to be ineffective — a case which, we submit, has yet to be made here. Second, to no small degree, the proverbial genie has escaped from the bottle: the transition to digital television (DTV) has already taken hold to such an extent that the regulations proposed by the Broadcast Protection Discussion Group (BPDG) would detrimentally affect the investments and expectations of consumers and manufacturers alike. And finally, history has shown that the best solution to the legitimate piracy concerns of the content providers is in the spheres of enforcement and business adaptation. The FCC should continue in its role of aggressively facilitating cooperation between the content, distribution, and electronics industries, but mandating the “broadcast flag” or anything similar would run counter, we suggest, to its professed goal of expediting the transition to digital television.

I. Government Mandates Relating to Technological Development are Generally Undesirable

It is axiomatic that technology develops best on its own, free from unnecessary governmental restrictions. The proposed “broadcast flag” requirement would restrict the development of digital television technology in an attempt to increase the benefit that such technology confers. Yet recent history has shown that these two goals are in opposition and direct government intervention is *at best* ineffective in shaping the technological development process. One recent example of relevance is the NSA’s failed “Clipper Chip” project. In 1993 and 1994 the National Institute of Standards and Technology developed a sophisticated (and purportedly superior) encryption technology, including a ‘key escrow’ feature (the NIST and the Treasury Department held “escrowed” keys)—thus allowing access to encrypted information by law enforcement.¹ The Clipper Chip, it was argued claimed, would both meet modern encryption needs while providing a valuable tool to law enforcement. The rapidly-developing market for encryption technology chose not to take the NSA’s suggestion to adopt the Clipper Chip standard. Eight years later, encryption technology has long since bypassed the Clipper Chip, the NSA has changed its approach, and society has reaped the benefits. Businesses, consumers, and the government have enjoyed access to a wide variety of encryption technologies, facilitating an array of uses, such as online shopping and secure networking. It seems clear in retrospect that many such uses were not fully anticipated by the Clipper Chip initiative, and society may not have realized them so soon if the encryption industry had not chosen to (and, indeed, been free to) develop encryption algorithms freely and independently. A

¹ See generally Electronic Privacy Information Center, “The Clipper Chip” <http://www.epic.org/crypto/clipper/>

competitive market (built on standard regimes of intellectual property rights) is an enormously powerful driver of technological advancement.

This is not to suggest that the development of broadcast copy protection technologies is in any way undesirable. It may well be that content distribution will be most efficiently achieved via such mechanisms; the “broadcast flag” might become an important feature of digital television. The point here is that there is no a priori reason to believe that such technologies will not be developed and deployed through the ordinary course of market operations. (As we note below, there is substantial historical reason to discount the often-hyperbolic assertions of industry destruction by the content providers.) In such a set of circumstances—with rapidly developing technologies, a growing marketplace, and deep uncertainty concerning the most efficient models for delivering digital content to consumers—it is incumbent upon those who would wish to restrict the development of competitive technologies to offer compelling evidence of market failure. We suggest that such a showing has not been made, and that the FCC’s best course is to refrain from intervention.

II. The Proposed Regulations will Upset Expectations

The digital television transition is well underway. Mandates on technology that is already in retail stores and homes across the country would place an unfair burden on people who have already bought DTV equipment and would set a bad precedent for an agency that wishes to facilitate technological advancements. Over 550 stations are currently broadcasting in digital². The Consumer Electronics Association states that 270,000 DTV sets were sold in

² Remarks of Michael Powell (Chairman, FCC) at the Association for Maximum Television DTV Update Conference, October 22, 2002. <http://www.fcc.gov/Speeches/Powell/2002/spmcp211.html>

September 2002 alone³, and that 2.1 million will have been sold in the year 2002⁴. The CEA further notes that the total investment in digital television by consumers is approximately 7 billion dollars, spent by more than 3.5 million Americans⁵. If the broadcast flag or any other copy protection technology is mandated as the FCC proposed, literally millions of consumers will either need to replace their \$2000 investment in DTV, or pay to have it retrofitted. We note that the BPDG report expressed concern for this but—perhaps tellingly—offered no solution⁶.

Perhaps even more importantly, the undermining of settled expectations by regulatory action provides a disquieting signal concerning the FCC's role in facilitating technological development. That consumer electronics become obsolete as technology develops is an expected and well-understood trend. But when such investments—whether by consumers or manufacturers—suddenly become useless because of government regulation, it sets a dangerous precedent. The resulting confusion and distrust will reduce incentives to invest in new technology in the future, which will create more difficulties for the FCC when it wishes to facilitate future technological transitions.

III. Industry Adaptation and Development will Meet the DTV Challenge

The solutions to the content providers' fears of digital piracy are the same mechanisms that have always answered the fear that a particular new technology will give criminals/pirates/free-riders an advantage: adaptation by the threatened industry and adaptation

³ Remarks of Michael Powell (Chairman, FCC) at the Association for Maximum Television DTV Update Conference, October 22, 2002. <http://www.fcc.gov/Speeches/Powell/2002/spmkp211.html>

⁴ Consumer Electronics Association, "DTV Sales Flourish in July," September 5, 2002, http://www.ce.org/press_room/press_release_detail.asp?id=10024

⁵ Consumer Electronics Association, "Cable Compatibility, Consumer-Friendly Copy Protection and Content Availability Remain Keys to Accelerating DTV Transition, says CEA", September 25, 2002, http://www.ce.org/press_room/press_release_detail.asp?id=10029

⁶ BPDG Report at 2.12.5 <http://www.cptwg.org/Assets/BPDG/BPDG%20Report.DOC>

of the methods of detection and enforcement. In 1982, Jack Valenti, the chairman of the Motion Picture Association of America, testifying before Congress, gave the famous quote that “the VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone.” He claimed in the same testimony that the VCR’s ability to edit out commercials “destroys the reason for free television,” and predicted the end of the motion picture industry. Twenty years after Valenti’s testimony, sales and rentals of VHS tapes and DVDs accounted for nearly \$17 billion in consumer expenditures,⁷ in the absence of any regulations restricting the copying or editing capabilities of the VCR. The VCR provided a new avenue of profitability for the MPAA, and instead of benefiting from government regulation, the MPAA established a system of delays between the date of theater release, rental release, VHS retail release and public broadcast of its films so that it could profit from each phase, and the advent of the VCR proved to be anything but a “Boston Strangler” for the film industry.

Every advance in technology creates a potential risk that it will be exploited in an undesirable fashion. Yet we rarely think of *ex ante* technological mandates as the appropriate solution. The reason is simple: if the risk is serious enough, the market (and, perhaps, law enforcement) will respond. Fear of increased criminal activity has led to advances such as data encryption, security systems, bank vaults, and even driven the advancement of television technology in the case of surveillance equipment. These problems are best left to enforcement agencies and market mechanisms rather than *ex ante* technological mandates; fears of future criminal activity are usually exaggerated and shortsighted and the “risky” technology usually ends up being a net windfall for society.

⁷ Figure is for the year 2001, Consumer Electronics Association: “Digital America”
http://www.ce.org/publications/books_references/digital_america/video/vcr_decline.asp

In conclusion, the FCC would do better to facilitate the DTV transition by maintaining a neutral position concerning the development of complementary copy protection technologies, and seeking to facilitate agreements between industries rather than mandating a technological standard. Imposing direct restrictions on developing technology ultimately deprives society of many of its benefits. Over 550 stations are broadcasting digital television service to over 3 million DTV sets, and these numbers are climbing daily. It would set a bad precedent and place an unfair burden on consumers and manufacturers to require them to redesign, retrofit or replace existing equipment. And finally, problems of digital piracy are better solved by market mechanisms and enforcement agencies than by an increase in the level of regulation. As Chairman Powell has said, “there is no turning back and no retreat.” Imposing a broadcast flag requirement would mark an unfortunate and ill-advised retreat from a market-based approach.

Respectfully Submitted,



R. Polk Wagner
Assistant Professor
University of Pennsylvania Law School[□]
3400 Chestnut Street
Philadelphia, PA 19104
(215) 898-4356
polk@law.upenn.edu
polk.pennlaw.net/



William H. Burgess
J.D. Candidate 2005
University of Pennsylvania Law School
3400 Chestnut Street
Philadelphia, PA 19104
(215) 432-8440
wburgess@law.upenn.edu

Submitted: October 30, 2002

[□] The views expressed herein do not necessarily represent those of our affiliated institution.